



DEPARTMENT OF TRANSPORTATION

Isiah Leggett
County Executive

Al R. Roshdieh
Director

MEMORANDUM

December 8, 2016

TO: Mr. Roger Berliner, Council President
County Council

FROM: Al R. Roshdieh, Director
Department of Transportation

SUBJECT: White Oak Science Gateway – LATR Cost Estimating Analysis

Following approval of the White Oak Science Gateway (WOSG) Master Plan, the County Council directed that MCDOT estimate costs for LATR-scale treatments across the entire WOSG policy area. This memorandum summarizes the findings associated with the LATR Cost Estimating Analysis.

Of the identified intersection needs, we identified seven intersection improvements that should be included in the pro-rata fee:

- US 29 at Randolph Rd / Cherry Hill Rd
- Broadbitch Dr at Cherry Hill Rd & Plum Orchard Dr
- Broadbitch Dr at Tech Rd
- US 29 at Industrial Pkwy
- Tech Rd at Prosperity Dr / Old Columbia Pike
- MD 650 at Lockwood Dr
- MD 650 at Powder Mill Rd

We studied a larger number of intersections and excluded locations that are expected to be constructed by specific developments, are located outside the White Oak policy area, or involve continuous widening of US 29, which is not proposed due to potential major impacts and minimal likelihood of public support. The master plan was passed without satisfying the Roadway and Transit TPAR tests, and includes high proposed NADMS goals. Therefore, projects geared toward boosting the NADMS are the preferred path toward addressing the transportation needs for the policy area not directly addressed by the intersection improvements. Accordingly, in addition to the intersection improvements previously discussed, we recommend including projects geared toward increasing the NADMS, as listed below:

Office of the Director

101 Monroe Street, 10th Floor • Rockville, Maryland 20850 • 240-777-7170 • 240-777-7178 FAX

www.montgomerycountymd.gov/dot

Located one block west of the Rockville Metro Station

INTERSECTIONS

• US 29 at Randolph Rd / Cherry Hill Rd	\$2,000,000
• Broadbirch Dr at Cherry Hill Rd & Plum Orchard Dr	\$3,600,000
• Broadbirch Dr at Tech Rd	\$1,700,000
• US 29 at Industrial Pkwy ¹	\$4,400,000
• Tech Rd at Prosperity Dr / Old Columbia Pike ¹	\$2,300,000
• MD 650 at Lockwood Dr	\$1,400,000
• MD 650 at Powder Mill Rd	<u>\$1,200,000</u>
Subtotal	\$16,600,000

TRANSIT ²

• New Ride-On Service	\$8,400,000
• Increased Ride-On Service ³	\$12,000,000
• Hillandale Transit Center	\$500,000
• Bus Stop Improvements	\$100,000
• Bikeshare ⁴	<u>\$4,600,000</u>
Subtotal	\$25,600,000

BIKEWAYS

• M-10 US 29 (Columbia Pike)	\$2,200,000
• M-12 MD 650 (New Hampshire Ave)	\$4,800,000
• A-94 Powder Mill Rd	\$18,200,000
• A-106 Industrial Pkwy ⁵	\$8,400,000
• A-107 Tech Rd	\$8,000,000
• A-108 Prosperity Dr	\$14,600,000
• A-286 Lockwood Dr	\$18,400,000
• B-3 Elton Rd	<u>\$500,000</u>
Subtotal	\$75,100,000

LATR Analyses ⁶	\$500,000
White Oak TMD Program	\$13,900,000

Total \$131,700,000

PM Peak Hour Vehicle-Trips 20,323

\$ / PM Peak Hour Vehicle-Trip ~\$6,500

¹ This could be removed if the interchange at US 29 and Tech Rd / Industrial Pkwy is funded for construction.

² Capital costs only; operating and maintenance costs are not included.

³ Increased service along routes 10, 21, and 22.

⁴ A total of 67 stations across the plan area over the lifetime of the plan. Capital costs only.

⁵ The existing portion of Industrial Pkwy may be reconstructed as part of the Viva White Oak project.

⁶ \$100,000 every 5 years, from 2017 to 2040, including this analysis.

Note that all costs are over the 2040 lifetime of the plan. This is particularly applicable with the transit projects, which include bus & bike replacements over time. The TMD program includes a relatively small annual amount that increases each year. Transit and Bikeshare operating costs are not included, though it is important to note that they are substantial.

A separate White Paper provides additional detail on each project, including further description as to the rationale of including or excluding projects. Additional details to mention include:

LOCAL ACCESS ANALYSES

This analysis uses macroscopic models that do not necessarily focus on the intricacies of an individual development, which may have a varying number of access points spread out across one or multiple roadways. New developments must still evaluate access points for any necessary treatments and mitigate as necessary.

WOSG-ADJACENT DEVELOPMENTS

To address developments located outside the White Oak Policy Area but generating trips to, from, or through the White Oak Policy Area: we suggest assessing the pro-rata fee on a per-trip basis with no further analyses required within the White Oak Policy Area.

IMPACT TAX CREDITS

Contributions to the per-trip fee should not be eligible for impact tax credit. If a developer constructs a project that would otherwise be eligible for impact tax credit then it would remain eligible for impact tax credit, but not for credits toward the pro-rata fee.

MONITORING / REASSESSMENT

Changes in the pace and nature of land development as well as the need and palatability of transportation infrastructure and transportation preferences will change over time. Regular reassessments of the pro-rata fee should be included. Our cost estimate assumes that this analysis and fee be reassessed at 5 year intervals.

COLLECTION & APPLICATION

We suggest that the pro-rata fee be collected following the same procedures as adopted for transportation impact taxes. We suggest that a CIP be created for the White Oak area, into which revenues can be assigned.

Should you have any questions regarding this analysis, please feel free to contact me or Mr. Andrew Bossi, Senior Engineer, at 240-777-7200.

AR:CC:AB:kcf

Attachments: LATR Cost Estimating Analysis White Paper
Sabra, Wang, & Associates Technical Memorandum

cc: Chris Conklin, MCDOT
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Andrew Bossi, MCDOT
Peter Fosselman, MC County Executive
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